

To: FCC

From: Michael A. Mraz

Re: Docket 03-104, concerning Carrier Current Systems, including Power Line Broadband Systems

Broadband Power Line technology (BPL) is completely and utterly incompatible with other users of the MF and HF spectra. Should unlicensed BPL be deployed, the potential exists for interference of such a severity that licensed services, such as Amateur Radio, will be unusable over large geographic portions of the United States.

Overhead transmission and distribution (power) lines were never designed to be used as communication channels. MF and HF users have been fighting unintentional interference from power line radiation for decades. In some cases, even when the offending utility has been cooperative in eliminating the interference, the problems never have been solved. Overhead power lines have been shown, both through engineering analysis and practical experience, to be excellent radiators (i.e., antennas) at MF and HF. Given these facts, the potential interference from deployment of BPL is unimaginable.

In my case, interference from Part 15 devices has rendered portions of the MF/HF spectrum unusable at my amateur radio station location. The worst offenders are inexpensive imported, poorly engineered, poorly manufactured "touch lamps." These units radiate unstable 60Hz-modulated harmonics that obliterate portions of the MF/HF spectrum, and I assume that some of the radiation is occurring via my neighbors' in-building and power distribution wiring. Moreover, because the oscillators in these devices are so unstable, the portions of the spectrum that they obliterate shift constantly as the oscillator frequency drifts about.

So far, when I have handled message traffic during disaster relief communications (during the Loma Prieta earthquake of 1989, and the Seattle/Nisqually earthquake of 2001), I was able to work around the touch-lamp-generated interference. However, the interference potential of BPL is so severe that amateur radio's most important public service, emergency communications, would be rendered useless. When the public needed us most we wouldn't be there, thanks to BPL.

I urge you to take no action to allow deployment of BPL.

Sincerely,

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